## REMARKS

Claims 1, 2, 4, 6, 8, 9, and 12-25 are pending after entrance of this amendment. Original claims 1-12 stood rejected. The rejection is traversed in light of the amendments.

Claim 5 stood objected to base on improper dependency. The rejection is mooted by the cancellation of Claim 5.

Claim 1 stands rejected under 35 U.S.C. §112, ¶2 for use of the phrase "utilizing electronically." The phrase has been deleted from claim 1.

Claim 1 stands rejected under 35 U.S.C. §112, ¶1 with respect to the way that the PCI card captures video signals when it uses only "a slot and power" from the host computer. The Examiner is correct that the PCI card must capture video signals from the host computer. The way claim 1 now reads, the virtual presence server receives only power signals directly from the host computer bus while the multiple-terminated cable (not the host computer per se) then directly supplies the host's video signal from the host's video port on the host computer casing to the host connector port virtual presence server's face plate. In other words, in claim 1, only power is provided directly to the card via the bus (and no other signals) while the video feed is provided from the external video port of the computer to the external video port of the card through a loop-back cable. Claim 1 is now re-worded to be clear that the VPS is the part connected "inside" the computer casing and receives "only" power and physical support from the host computer *bus* structure. It then also recites the loop-back cable that directly supplies the VPS with the necessary video data (albeit perhaps *in*directly from the host computer bus via the loop-back cable). For full disclosure, Applicant notes for the Examiner's attention that claim 18 is slightly different from claim 1 in that the virtual presence server *does* receive the video data from the host computer *bus* (in addition to power) but "does not send any instructions to the processor of the host computer via the host computer bus" thus still ensuring that the virtual presence server operates without affecting the performance or functioning of the host computer processor.

Applicant has also taken the opportunity to add some amendments to the specification, including the addition of Figures 5 and 6. The amendments are supported by the original specification and the descriptions in the provisional application 60/452,175, which was incorporated by reference in paragraph [0001]. Specifically, the applicant directs the examiner's attention to "Figure 4" of that provisional application (and associated text at, for example, paragraphs [0034]-[0037] of that provisional application) which is now reproduced as newly added Figure 6 and "Figure 5 of that provisional application (and associated text at, for example, paragraphs [0034]-[0037] of that provisional application) which is now reproduced as newly added Figure 5.

The reference in paragraph [0025] of the original specification to Figure 4 as an illustration of the "loop back" configuration was in obvious error and is now corrected by the amendments to paragraphs [0025] and [0029]-[0033]. Figure 4 is the data flow of the video subsystems (as shown in the figure itself) which was described in original paragraph [0025]. The additions to paragraph [0025] do not add new matter. For the Examiner's convenience, a markup copy of the changes to paragraph [0025] is as follows:

> "[0025] In another embodiment of the present invention illustrated in Figure 4, the devices in the VPA, including the VPS video subsystem 400 and VPC video subsystem 420 can be characterized by their data flow requirements. For example, the video logic system 306 on the VPS captures video frames at step 402, does delta analysis at steps 412 and 414 to compare current frame data 404 to that of an earlier frame 406, and encodes the stream at step 416. The encoded video is sent by message delivery in step 418 to the VPC for the VPC to decode at step 422 and display at step 428. In the VPS, the encoder step 416 can be preceded by monochrome detection 408 and mapping 410. In the VPC, the video decoding step can be succeeded by smoothing at step 424 and loading into frame buffer 426. This does not require any return information in accordance with an embodiment of the present invention. Similarly, the mouse and keyboard subsystems

may simply transmit the stream from their corresponding devices on the VPC 305 for transmission to the VPS 304. On the other hand, special devices such as a USB may require bi-directional transfer, which are treated as independent directional flows by the architecture."

The changes to paragraphs [0029]-[0033] are also shown or described in either the original paragraphs [0029]-[0033] of the specification or in the provisional application. Applicant has added the 500-series numbering in Figure 5 and the 600-series numbering in Figure 6 for clarity, neither of which was shown in the original provisional application, without adding new matter. For the Examiner's convenience, a markup copy of the changes to paragraphs [0029]-[0033] is as follows:

"[0029] ~~Fig. 4 illustrates~~ Figs. 5 and 6 illustrate an exemplary block diagram of a VPS 602 inside a host computer 601 with external loop back cables 501-504 in accordance with an embodiment of the present invention. As discussed herein, implementations of the VPA may be done with various configurations of hardware and software. The loop back configuration of ~~Figure 4~~ Figure 5 is envisioned to provide several advantages.

[0030] Therefore, the loop back configuration described here puts the PCI card 500 functions on an FPGA, which may be used to implement the logic in hardware. Then, a cable 501 is connected into the PCI card functions from the internal video graphics card. This effectively puts the PCI card 500 into the host computer 601, but it does not affect the way that the host CPU is running. Therefore, the PCI card 500 uses a slot and power from the host computer 601, but does not affect its performance or functioning in any way. However, this placement allows the PCI card to capture the video signals coming from the host computer and relay them across the network. Additionally, the PCI card has the functionality to receive keyboard 607 and mouse 605 strokes and relay them to the keyboard and mouse ports on the host.

[0031] Additionally, in the loop back configuration of Figures 5 and 6, there are no video, keyboard or mouse drivers attached to the host from the VPS. Also, there is no impact on the host except for power, ground and slot consumption (e.g., a PCI slot). Further, no platform certification issues exist because it does not interact with the PC bus. Therefore, the VPA will function with any commercially available personal computer. Moreover, this system is relatively simple to install and there is no impact on the local operator of the Host.

[0032] As shown in Figure [[4]] 6, the Host ~~402~~ 601 is in communication with Virtual Presence Server (VPS) ~~404~~ 602. VPS ~~404~~ 602 receives keyboard ~~410~~ 348 inputs, mouse ~~412~~ 350 inputs and other device ~~414~~ 352 inputs via IP network ~~406~~ 603. The VPS ~~404~~ 602 receives these signals through their previously described respective subsystems, and sends them to Host ~~402~~ 601. It should be noted that there is not a virtual presence client (VPC) pictured in Figure [[4]] 6 because it is embodied entirely in software on the remote computer or terminal emulator. Once inside Host ~~402~~ 601, the signals are executed internally. Host ~~402~~ 601 then outputs video and other device signals, which are transmitted to video display ~~408~~ 346 and other device ~~414~~ 352 by VPS ~~404~~ 602 over IP network ~~406~~ 603 for execution on those devices. The VPS may also have a local keyboard 607, mouse 605, other device 606 and display 604.

[0033] In an embodiment of the present invention, a PCI card 500 may be utilized as VPS ~~404~~ 602. The PCI card would use only the power and ground for the PCI card slot on the host computer ~~402~~ 601. The PCI card has a connector that accepts the video, keyboard and mouse data of the client computer and provides connections 502-504 for the corresponding devices to be connected and looped through to the host. In

addition, it has an external power connection so that the VPS on the card can monitor power status of the host."

Applicant contends that the changes to the specification are supported by the original specification including the provisional application disclosure that was incorporated by reference.

Claims 1-3 and 5-12 stood rejected under 35 U.S.C. §102 over Leigh and Claim 4 stood rejected under 35 U.S.C. §103 over Leigh in combination with Zansky. With respect to newly amended claim 1, Leigh does not disclose the loop-back cable that allows the virtual presence server to operate independently of the host processor. For example, neither reference discloses the "virtual presence server installed inside said host computer with a face plate facing outside of the host computer casing and having a host connector port and a network port, the virtual presence server being physically connected to the host computer only at one associated physical bus slot location and being electrically connected to the host computer bus to receive only power from the host computer bus; a multiple-terminated cable having a first cable end to physically connect to the connector port and having at a distal end separated video, keyboard, and mouse connectors to connect to, respectively, video, keyboard and mouse ports on the host computer casing for transmission of keyboard and mouse information to the host computer on, respectively, the keyboard and mouse ports, and reception of the video data from the host computer on the video port; and a virtual presence client communicating with said host computer through said virtual presence server to provide a virtual presence on said remote computer, the virtual presence client communicating the keyboard and mouse information via, in order: a network, the network port, the virtual presence server, the first cable end, the multiple-terminated cable, the keyboard and mouse connectors, and the keyboard and mouse ports to the host computer, and receiving the video data from the host computer via, in order: the video port, the multiple terminated cable, the video connector, the virtual presence server, the network port and the network to the virtual presence client," as claim 1 requires. Rather, Leigh relates to remote management systems that are more intrusive in that they do not provide a loop-back cable or the ability

to operate without instructing a computer bus. Further, Leigh and Zansky do not disclose that "only" power is received directly from the bus to the VPS. Although the Office Action points to Figure 5 and [0051] of Leigh for the provision of a VPS that uses only power and a physical PCI slot from the host computer, neither citation actually discloses that the only electrical signal passing directly from the host bus to the VPS is power.

Claim 8 is similar to claim 1, in that it requires a VPS inside the host computer so a face plate of the VPS faces outside of the host computer casing with a host connector port and a network port on the face plate and physically connecting the VPS to the host computer only at one associated physical bus slot location and electrically connecting to the host computer bus only to receive power from the host computer bus; and connecting the host computer at a distal end of the multiple-terminated cable using separated video, keyboard, and mouse connectors to connect to, respectively, video, keyboard and mouse ports on the host computer casing for transmission of keyboard and mouse information to the host computer on, respectively, the keyboard and mouse ports, and reception of the video data from the host computer on the video port; and the virtual presence client communicating the keyboard and mouse information via, in order: the network, the network port, the virtual presence server, the first cable end, the multiple-terminated cable, the keyboard and mouse connectors, and the keyboard and mouse ports to the host computer, and receiving the video data from the host computer via, in order: the video port, the multiple terminated cable, the video connector, the virtual presence server, the network port and the network to the virtual presence client. Claim 8 thus is patentable over Leigh because it too (like claim 1) requires that only power is delivered directly from the bus to the VPS and that the video data is delivered through a path including the loop-back cable. Leigh does not disclose that.

Claim 18 recites a similar VPA of claim 1 except that the VPS directly receives only (and both) power and video data from the host computer bus. A loop-back cable still connects the outer face plate of the VPS to the host computer keyboard and mouse ports. Unlike Claim 18, Leigh does not teach the communications paths: "communicating the keyboard and mouse information via, in order: a network, the

network port, the virtual presence server, the first cable end, the multiple-terminated cable, the keyboard and mouse connectors, and the keyboard and mouse ports to the host computer, and receiving the video data from the host computer via, in order: the host computer bus, the virtual presence server, the network port and the network to the virtual presence client, whereby the virtual presence server does not send any instructions to the processor of the host computer via the host computer bus." Further, Leigh does not disclose that "only" power and video signals are received directly from the bus to the VPS, nor that the VPS does not send instructions to the processor (via, for example, loaded driver functions or other instruction receivers).

Zansky, cited with respect to external power in claim 4 is not relied upon for any of the above deficiencies of the now-amended and now-added claims. Accordingly, the pending claims are patentable over the combination of Leigh in view of Zansky.

Reconsideration is requested.

**CHARGE STATEMENT:** Deposit Account No. 501860, order no. 2540-0703.

The Commissioner is hereby authorized to charge any fee specifically authorized hereafter, or any missing or insufficient fee(s) filed, or asserted to be filed, or which should have been filed herewith or concerning any paper filed hereafter, and which may be required under Rules 16-18 (missing or insufficiencies only) now or hereafter relative to this application and the resulting Official Document under Rule 20, or credit any overpayment, to our Accounting/Order Nos. shown above, for which purpose a duplicate copy of this sheet is attached

**This CHARGE STATEMENT does not authorize charge of the issue fee until/unless an issue fee transmittal sheet is filed.**

Respectfully submitted,

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